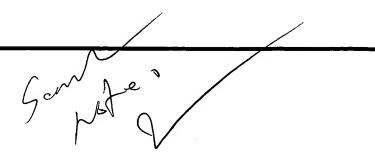
6,759,519



## What is claimed is:

- 1. An isolated antibody which binds a fragment of the polypeptide of SEQ ID NO:2, wherein said fragment consists of an extracellular portion cleaved from the transmembrane and intracellular domain of said polypeptide.
- 2. The antibody of claim 1, wherein said antibody binds the whole native polypeptide of SEQ ID NO:2.
- 3. The antibody of claim 1, wherein said antibody is polyclonal.
- 4. The antibody of claim 1, wherein said antibody is monoclonal.
- 5. The antibody of claim 1, wherein said antibody is chimeric.
- 6. The antibody of claim 1, wherein said antibody is humanized.
- 7. The antibody of claim 1, wherein said antibody is an antagonist of the polypeptide of SEQ ID NO:2.
- 8. The antibody of claim 1, wherein said antibody is an agonist of the polypeptide of SEQ ID NO:2.
- 9. A composition comprising the antibody of claim 1, and a carrier.
- 10. A method of producing the antibody of claim 1, comprising:
- (a) immunizing an animal with a polypeptide comprising an extracellular portion cleaved from the transmembrane and intracellular domain of SEQ ID NO:2; and
- (b) producing an antibody which binds said polypeptide.
- 11. An isolated antibody fragment which binds a fragment of the polypeptide of SEQ ID NO:2, wherein said polypeptide fragment consists of an extracellular portion cleaved from the transmembrane and intracellular domain of said polypeptide.
- 12. The antibody fragment of claim 11, wherein said antibody fragment binds the whole native polypeptide of SEQ ID NO:2.
- 13. The antibody fragment of claim 11, wherein said antibody fragment comprises an Fab fragment.
- 14. The antibody fragment of claim 11, wherein said antibody fragment comprises a single chain antibody.
- 15. The antibody fragment of claim 11, wherein said antibody fragment is chimeric.
- 16. The antibody fragment of claim 11, wherein said antibody fragment is humanized.

- 17. The antibody fragment of claim 11, wherein said antibody fragment is an antagonist of the polypeptide of SEQ ID NO:2.
- 18. The antibody fragment of claim 11, wherein said antibody fragment is an agonist of the polypeptide of SEQ ID NO:2.
- 19. A composition comprising the antibody fragment of claim 11, and a carrier.
- 20. A method of producing the antibody fragment of claim 11, comprising:
- (a) immunizing an animal with a polypeptide comprising an extracellular portion cleaved from the transmembrane and intracellular domain of SEQ ID NO:2; and
- (b) producing an antibody fragment which binds said polypeptide.
- 21. An isolated antibody which binds a fragment of the HDGNR10 polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183, wherein said fragment consists of an extracellular portion cleaved from the transmembrane and intracellular domain of said polypeptide.
- 22. The antibody of claim 21, wherein said antibody binds the whole native polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.
- 23. The antibody of claim 21, wherein said antibody is polyclonal.
- 24. The antibody of claim 21, wherein said antibody is monoclonal.
- 25. The antibody of claim 21, wherein said antibody is chimeric.
- 26. The antibody of claim 21, wherein said antibody is humanized.
- 27. The antibody of claim 21, wherein said antibody is an antagonist of the polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.
- 28. The antibody of claim 21, wherein said antibody is an agonist of the polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.
- 29. A composition comprising the antibody of claim 21, and a carrier.
- 30. A method of producing the antibody of claim 21, comprising:
- (a) immunizing an animal with a polypeptide comprising an extracellular portion cleaved from the transmembrane and intracellular domain of the HDGNR10 amino acid sequence encoded by the HDGNR10 clone in ATCC Deposit No. 97183; and
- (b) producing an antibody which binds said polypeptide.
- 31. An isolated antibody fragment which binds a fragment of the HDGNR10 polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183, wherein said polypeptide fragment consists of an extracellular portion cleaved from the transmembrane and intracellular domain of said polypeptide.
- 32. The antibody fragment of claim 31, wherein said antibody fragment binds the whole native polypeptide

encoded by the HDGNR10 clone in ATCC Deposit No. 97183.

- 33. The antibody fragment of claim 31, wherein said antibody fragment comprises an Fab fragment.
- 34. The antibody fragment of claim 31, wherein said antibody fragment comprises a single chain antibody.
- 35. The antibody fragment of claim 31, wherein said antibody fragment is chimeric.
- 36. The antibody fragment of claim 31, wherein said antibody fragment is humanized.
- 37. The antibody fragment of claim 31, wherein said antibody fragment is an antagonist of the polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.
- 38. The antibody fragment of claim 31, wherein said antibody fragment is an agonist of the polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.
- 39. A composition comprising the antibody fragment of claim 31, and a carrier.
- 40. A method of producing the antibody fragment of claim 31, comprising:
- (a) immunizing an animal with a polypeptide comprising an extracellular portion cleaved from the transmembrane and intracellular domain of the HDGNR10 amino acid sequence encoded by the HDGNR10 clone in ATCC Deposit No. 97183; and
- (b) producing an antibody fragment which binds said polypeptide.
- 41. An isolated antibody which binds the polypeptide of SEQ ID NO:2 when said polypeptide is expressed on the surface of a cell.
- 42. The antibody of claim 41, wherein said antibody binds an extracellular portion cleaved from the transmembrane and intracellular domain of the polypeptide of SEQ ID NO:2.
- 43. The antibody of claim 41, wherein said antibody is polyclonal.
- 44. The antibody of claim 41, wherein said antibody is monoclonal.
- 45. The antibody of claim 41, wherein said antibody is chimeric.
- 46. The antibody of claim 41, wherein said antibody is humanized.
- 47. The antibody of claim 41, wherein said antibody is an antagonist of the polypeptide of SEQ ID NO:2.
- 48. The antibody of claim 41, wherein said antibody is an agonist of the polypeptide of SEQ ID NO:2.
- 49. A composition comprising the antibody of claim 41, and a carrier.
- 50. A method of producing the antibody of claim 41, comprising:
- (a) immunizing an animal with a polypeptide comprising an extracellular portion cleaved from the transmembrane and intracellular domain of SEQ ID NO:2; and

- (b) producing an antibody which binds said polypeptide.
- 51. An isolated antibody fragment which binds the polypeptide of SEQ ID NO:2 when said polypeptide is expressed on the surface of a cell.
- 52. The antibody fragment of claim 51, wherein said antibody fragment binds an extracellular portion cleaved from the transmembrane and intracellular domain of the polypeptide of SEQ ID NO:2.
- 53. The antibody fragment of claim 51, wherein said antibody fragment comprises an Fab fragment.
- 54. The antibody fragment of claim 51, wherein said antibody fragment comprises a single chain antibody.
- 55. The antibody fragment of claim 51, wherein said antibody fragment is chimeric.
- 56. The antibody fragment of claim 51, wherein said antibody fragment is humanized.
- 57. The antibody fragment of claim 51, wherein said antibody fragment is an antagonist of the polypeptide of SEQ ID NO:2.
- 58. The antibody fragment of claim 51, wherein said antibody fragment is an agonist of the polypeptide of SEQ ID NO:2.
- 59. A composition comprising the antibody fragment of claim 51, and a carrier.
- 60. A method of producing the antibody fragment of claim 51, comprising:
- (a) immunizing an animal with a polypeptide comprising an extracellular portion cleaved from the transmembrane and intracellular domain of SEQ ID NO:2; and
- (b) producing an antibody fragment which binds said polypeptide.
- 61. An isolated antibody which binds the HDGNR10 polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183 when said polypeptide is expressed on the surface of a cell.
- 62. The antibody of claim 61, wherein said antibody binds an extracellular portion cleaved from the transmembrane and intracellular domain of the HDGNR10 polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.
- 63. The antibody of claim 61, wherein said antibody is polyclonal.
- 64. The antibody of claim 61, wherein said antibody is monoclonal.
- 65. The antibody of claim 61, wherein said antibody is chimeric.
- 66. The antibody of claim 61, wherein said antibody is humanized.
- 67. The antibody of claim 61, wherein said antibody is an antagonist of the HDGNR10 polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.
- 68. The antibody of claim 61, wherein said antibody is an agonist of the HDGNR10 polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.

- 69. A composition comprising the antibody of claim 61, and a carrier.
- 70. A method of producing the antibody of claim 61, comprising:
- (a) immunizing an animal with a polypeptide comprising an extracellular portion cleaved from the transmembrane and intracellular domain of the HDGNR10 amino acid sequence encoded by the HDGNR10 clone in ATCC Deposit No. 97183; and
- (b) producing an antibody which binds said polypeptide.
- 71. An isolated antibody fragment which binds the HDGNR10 polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183 when said polypeptide is expressed on the surface of a cell.
- 72. The antibody fragment of claim 71, wherein said antibody fragment binds an extracellular portion cleaved from the transmembrane and intracellular domain of the HDGNR10 polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.
- 73. The antibody fragment of claim 71, wherein said antibody fragment comprises an Fab fragment.
- 74. The antibody fragment of claim 71, wherein said antibody fragment comprises a single chain antibody.
- 75. The antibody fragment of claim 71, wherein said antibody fragment is chimeric.
- 76. The antibody fragment of claim 71, wherein said antibody fragment is humanized.
- 77. The antibody fragment of claim 71, wherein said antibody fragment is an antagonist of the HDGNR10 polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.
- 78. The antibody fragment of claim 71, wherein said antibody fragment is an agonist of the HDGNR10 polypeptide encoded by the HDGNR10 clone in ATCC Deposit No. 97183.
- 79. A composition comprising the antibody fragment of claim 71, and a carrier.
- 80. A method of producing the antibody fragment of claim 71, comprising:
- (a) immunizing an animal with a polypeptide comprising an extracellular portion cleaved from the transmembrane and intracellular domain of the HDGNR10 amino acid sequence encoded by the HDGNR10 clone in ATCC Deposit No. 97183; and
- (b) producing an antibody fragment which binds said polypeptide.
- 81. The antibody of claim 1, wherein said fragment is fused to a heterologous polypeptide.
- 82. The antibody fragment of claim 11, said polypeptide fragment is fused to a heterologous polypeptide.
- 83. The antibody of claim 21, wherein said fragment is fused to a heterologous polypeptide.
- 84. The antibody fragment of claim 31, wherein said polypeptide fragment is fused to a heterologous polypeptide.